

WE CLAIM:

1. A method for providing information about movement of a mobile object to each of a plurality of positions along the Earth's surface, comprising:
obtaining position data related to each of the plurality of positions; and
storing the position data for the plurality of positions in a persistent database for selective retrieval therefrom upon request to provide information about movement of the mobile object.
2. The method of claim 1, wherein the position data for the plurality of positions is obtained automatically.
3. The method of claim 1, wherein the position data for the plurality of positions is related to position measurements made at periodic time intervals.
4. The method of claim 1, wherein the position data for the plurality of positions comprises latitude and longitude.
5. The method of claim 4, wherein the position data for the plurality of positions further comprises altitude.
6. The method of claim 1, wherein the request is based on time.
7. The method of claim 1, wherein the request is based on at least one of said plurality of positions.
8. The method of claim 1, wherein the storing step includes converting the position data to location information related to at least one of said plurality of positions.
9. The method of claim 8, wherein said location information is at least one of street address, postal code, city, state and country.

10. A method for providing information about movement of a mobile object to each of a plurality of positions along the Earth's surface, comprising:

collecting in a persistent database position data related to each of the plurality of positions; and

responsive to a request related to a specified time and/or position, providing information about movement of the mobile object corresponding to the specified time and/or position by accessing the position data for the plurality of positions stored in said persistent database.

11. The method of claim 10, wherein the position data for the plurality of positions is collected automatically.

12. The method of claim 10, wherein the position data for the plurality of positions is constantly collected at periodic time intervals.

13. The method of claim 10, wherein the position data for the plurality of positions comprises latitude and longitude.

14. The method of claim 13, wherein the position data for the plurality of positions further comprises altitude.

15. The method of claim 10, wherein the step of accessing the position data responsive to a request comprises accessing location information derived from the position data and related to at least one of said plurality of positions.

16. The method of claim 15, wherein said location information is at least one of street address, postal code, city, state and country.

17. The method of claim 16, wherein said location information includes an index relating said position data of at least one of said plurality of positions to at least one

of street address, postal code, city, state and country for, responsive to said request, providing information about movement of the mobile object .

18. The method of claim 17, wherein location information includes an inverted index relating at least one of said street address, postal code, city, state and country to said plurality of positions for, responsive to said request, providing information about movement of the mobile object .

19. The method of claim 16, wherein said location information is a at least of a street map, terrain map and satellite map relating at least one of said plurality of positions to at least one of street address, postal code, city, state and country for, responsive to said request, providing information about movement of the mobile object .

20. A method for providing information about movement of a mobile object to each of a plurality of positions along the Earth's surface, comprising:
obtaining position data related to each of the plurality of positions; and
partitioning the position data for the plurality of positions into a plurality of clusters of related positions that are accessible to provide information in response to a request.

21. The method of claim 20, wherein the step of partitioning the position data comprises storing the plurality of clusters of related positions in a persistent database for selective retrieval therefrom upon request to provide information about movement of the mobile object.

22. The method of claim 20, wherein said partitioning step includes a pre-processing step of warping the position data to take into account that the Earth is approximately spherical

23. The method of claim 22, wherein said partitioning step includes a post-processing step of unwarping the output of the partition step to correct for said preprocessing step.

24. The method of claim 23, wherein said partitioning step includes performing the partitioning each time new position data is obtained.

25. The method of Claim 20, further comprising determining a periphery that bounds all positions from among said plurality of positions which are categorized into one of said plurality of clusters.

26. A method for providing information about movement of a mobile object to each of a plurality of positions along the Earth's surface, comprising:

obtaining position data related to each of the plurality of positions;
deriving, based on the position data, an individual map for each of a plurality of said positions; and
animating movement of the mobile object by combining a plurality of said individual maps.

27. The method of Claim 26, further comprising storing the individual maps in a persistent database for selective retrieval therefrom upon request to provide information about movement of the mobile object.

28. The method of Claim 26, wherein each of said derived maps is one of a street map, terrain map and satellite map relating the position data to at least one of street address, postal code, city, state and country for, responsive to a request, providing information about movement of the mobile object .

29. Apparatus for providing information about movement of a mobile object to each of a plurality of positions along the Earth's surface, comprising:

means for obtaining position data related to each of the plurality of positions; and

means for storing the position data for the plurality of positions in a persistent database for selective retrieval therefrom upon request to provide information about movement of the mobile object.

30. Apparatus for providing information about movement of a mobile object to each of a plurality of positions along the Earth's surface, comprising:

means for collecting in a persistent database position data related to each of the plurality of positions; and

means for, responsive to a request related to a specified time and/or position, providing information about movement of the mobile object corresponding to the specified time and/or position by accessing the position data for the plurality of positions stored in said persistent database.

31. Apparatus for processing information about movement of a mobile object to each of a plurality of positions along the Earth's surface, comprising:

means for obtaining position data related to each of the plurality of positions; and

means for partitioning the position data for the plurality of positions into a plurality of clusters of related positions.

32. Apparatus for providing information about movement of a mobile object to each of a plurality of positions along the Earth's surface, comprising:

means for obtaining position data related to each of the plurality of positions;

means for deriving based on the position data an individual map for each of a plurality of said positions; and

means for animating movement of the mobile object by combining a plurality of said individual maps.